CLAIMS

1. A method of mitigating errors in a distributed speech recognition process, the distributed speech recognition process being one in which speech recognition parameters are arranged in vectors corresponding to sampling time-frames and said speech recognition parameters are received at a second location having been transmitted from a first location;
the method comprising the steps of:
identifying a group comprising one or more of said vectors which have undergone a transmission error; and
replacing one or more speech recognition parameters in the identified group of vectors.

2. A method according to claim 1, wherein said one or more speech recognition parameters in said identified group of vectors are replaced by respective replacement parameters determined by reference to one or more speech recognition parameters from a vector received after said identified group of vectors.

3. A method according to claim 1 or 2, wherein all the speech recognition parameters of each vector of said group are replaced by replacing the whole vectors, and each respective replaced whole vector is replaced by a copy of whichever of the preceding or following vector without error is closest in receipt order to the vector being replaced.

4. A method according to claim 3, wherein a mode of transmission and a mode of error detection are such that said identified group comprises a pair of consecutive vectors, such that the first vector of said pair is replaced by the second vector of a preceding vector without error and the second vector of said pair is replaced by the first vector of a following vector without error.

5. A method according to claim 1 or 2, wherein all the speech recognition parameters of each vector of said group are replaced by replacing the whole vectors, and each respective replaced whole vector is replaced by a vector determined by means of an interpolation technique.

6. A method according to claim 1 or 2, wherein determination of which speech recognition parameter or parameters are to be replaced is performed by predicting, from vectors received without error, a predicted value for each speech recognition parameter within said identified group of vectors, and

5   replacing those speech recognition parameters within the identified group of vectors which are outside of a predetermined threshold relative to their respective predicted value.

7. A method according to claim 6, wherein if more than a specified number of

10   speech recognition parameters within said identified group of vectors are outside of their respective predetermined thresholds then all the speech recognition parameters of said identified group of vectors are replaced.

8. A method according to claim 6 or 7, wherein the speech recognition

15   parameters are replaced by the respective predicted values used in the step of determining which speech recognition parameters are to be replaced.

9. A method according to claim 6 or 7, wherein those speech recognition parameters which are within a predetermined threshold relative to their

20   respective predicted value are compared with a set of reference vectors to find a best match vector from said set of reference vectors, and those speech recognition parameters which are outside of a predetermined threshold relative to their respective predicted value are replaced by corresponding speech recognition parameters from said best match vector.

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10. A method according to claim 9, wherein speech recognition parameters from one or more neighbouring vectors are also compared with the set of reference vectors and the best match with respect to a plurality of consecutive reference vectors is chosen.

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11. A method according to any preceding claim, wherein said step of identifying a group comprising one or more of said vectors which have undergone a transmission error includes a step of predicting respective predicted values for said speech recognition parameters, determining one or more threshold

35   levels relative to the predicted values, and identifying vector groups as having undergone a transmission error responsive to a weighted analysis of

how many speech recognition parameters in a vector group are outside of each of said one or more threshold levels.

12. A method according to any of claims 1-10, wherein said step of identifying a group comprising one or more of said vectors which have undergone a transmission error includes a step of determining a difference between corresponding speech recognition parameters from different vectors within a vector group, and identifying a vector group having undergone a transmission error responsive to an analysis of how many of said differences are outside of a predetermined threshold level.

13. An apparatus for mitigating errors in a distributed speech recognition process, the distributed speech recognition process being one in which speech recognition parameters are arranged in vectors corresponding to sampling time-frames and said speech recognition parameters are received at a second location having been transmitted from a first location;
    the apparatus comprising:
    means for identifying a group comprising one or more of said vectors which have undergone a transmission error; and
    means for replacing one or more speech recognition parameters in the identified group of vectors.

14. An apparatus according to claim 13, wherein said one or more speech recognition parameters in said identified group of vectors are replaced by respective replacement parameters determined by reference to one or more speech recognition parameters from a vector received after said identified group of vectors.

15. An apparatus according to claim 13 or 14, wherein all the speech recognition parameters of each vector of said group are replaced by replacing the whole vectors, and each respective replaced whole vector is replaced by a copy of whichever of the preceding or following vector without error is closest in receipt order to the vector being replaced.

16. An apparatus according to claim 15, wherein a mode of transmission and a mode of error detection are such that said identified group comprises a pair

of consecutive vectors, such that the first vector of said pair is replaced by the second vector of a preceding vector without error and the second vector of said pair is replaced by the first vector of a following vector without error.

17. An apparatus according to claim 13 or 14, wherein all the speech recognition parameters of each vector of said group are replaced by replacing the whole vectors, and each respective replaced whole vector is replaced by a vector determined by means of an interpolation technique.

18. An apparatus according to claim 13 or 14, wherein determination of which speech recognition parameter or parameters are to be replaced is performed by predicting, from vectors received without error, a predicted value for each speech recognition parameter within said identified group of vectors, and replacing those speech recognition parameters within the identified group of vectors which are outside of a predetermined threshold relative to their respective predicted value.

19. An apparatus according to claim 18, wherein if more than a specified number of speech recognition parameters within said identified group of vectors are outside of their respective predetermined thresholds then all the speech recognition parameters of said identified group of vectors are replaced.

20. An apparatus according to claim 18 or 19, wherein the speech recognition parameters are replaced by the respective predicted values used in the step of determining which speech recognition parameters are to be replaced.

21. An apparatus according to claim 18 or 19, wherein those speech recognition parameters which are within a predetermined threshold relative to their respective predicted value are compared with a set of reference vectors to find a best match vector from said set of reference vectors, and those speech recognition parameters which are outside of a predetermined threshold relative to their respective predicted value are replaced by corresponding speech recognition parameters from said best match vector.

22. An apparatus according to claim 21, wherein speech recognition parameters from one or more neighbouring vectors are also compared with the set of reference vectors and the best match with respect to a plurality of consecutive reference vectors is chosen.

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23. An apparatus according to any of claims 13-22, wherein said means for identifying a group comprising one or more of said vectors which have undergone a transmission error includes means for predicting respective predicted values for said speech recognition parameters, means for
10   determining one or more threshold levels relative to the predicted values, and means for identifying vector groups as having undergone a transmission error responsive to a weighted analysis of how many speech recognition parameters in a vector group are outside of each of said one or more threshold levels.

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24. An apparatus according to any of claims 13-22, wherein said means for identifying a group comprising one or more of said vectors which have undergone a transmission error includes means for determining a difference between corresponding speech recognition parameters from different vectors
20   within a vector group, and means for identifying a vector group having undergone a transmission error responsive to an analysis of how many of said differences are outside of a predetermined threshold level.

25. An apparatus according to any of claims 13-24, wherein said speech
25   recognition parameters are transmitted from said first location to said second location over a radio communications link.

26. A method according to any of claims 1-12, wherein said speech recognition parameters are transmitted from said first location to said second location
30   over a radio communications link.